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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,827	07/01/2003	Sandor Nagy	88-2040A	3050
24114	7590	04/11/2005	EXAMINER	
LYONDELL CHEMICAL COMPANY			LEE, RIP A	
3801 WEST CHESTER PIKE			ART UNIT	
NEWTOWN SQUARE, PA 19073			PAPER NUMBER	
			1713	

DATE MAILED: 04/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/611,827

Applicant(s)

NAGY ET AL

Examiner

Rip A. Lee

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8-11 and 16-18 is/are rejected.
- 7) ☒ Claim(s) 6, 7 and 12-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action follows a response filed on August 20, 2004. Claims 1-18 remain.

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 21 and claim 27 of copending Application No. 10/806,503 (corresponds to U.S. 2004/0181017). Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons.

Present claim 1 is drawn to a process comprising polymerizing an olefin in the presence of an activator, an organometallic complex, an aluminum phosphate support wherein the organometallic complex comprises a group 3 to 10 transition metal, M, and at least one indenoindolyl ligand bonded to M.

Claim 22 of the copending application is drawn to a process comprising polymerizing an olefin in the presence of a catalyst system comprising an organometallic complex which comprises a group 3-10 transition metal, M, and at least one indenoindolyl ligand that is pi-bonded to M, an activator which comprises the reaction product of an alkylaluminum compound and an organoboronic acid, wherein the catalyst system is supported on an aluminum phosphate.

Claim 27 of the copending application is drawn to a process comprising polymerizing an olefin in the presence of a catalyst system comprising an organometallic complex which comprises a group 4 transition metal, M, and at least one indenoindolyl ligand that is pi-bonded to M, an activator which comprises the reaction product of an alkylaluminum compound and a polyfluoroaryl boronic acid, wherein the catalyst system is supported on an aluminum phosphate.

In this case, the instant claim 1 is generic to the claims 22 and 27 of the copending application. Whereas the instant claim recites use of a generic activator, the claims of the copending application recite specific (aluminumboronate) activators. The organometallic component and aluminum phosphate support component in the instant claim and that of the copending claims are essentially the same. As such, the subject matter of the instant claims fully encompasses the subject matter of the copending claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5, 8-11, and 16-18 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,759,361 to Lynch *et al.*

Lynch *et al.* teaches a process for polymerizing olefins in the presence of a catalyst comprising a Gp 3-10 transition metal and at least one indenolindolyl ligand bonded to the metal, an activator which is a reaction product of an alkylaluminum compound and an organoboronic acid (*i.e.*, aluminoboronate), and an aluminum phosphate support (claim 13 and general text). Optional second activators may be used, and these include aluminoxanes, alkylaluminums, and ionic borates (col. 6, lines 45-55). Olefins include ethylene and C₃-C₂₀ α-olefins as well as ethylene in conjunction with C₃-C₂₀ α-olefins (col. 7, lines 21-24). Polymerizations occur at 70 °C (for instance, example 3); slurry and gas phase polymerizations are contemplated (col. 7, line 38). Claim 4 shows the structure of the indenolindolyl ligand, and it corresponds directly to that featured in present claim 11. Example 3 shows one variation of the polymerization process in which the activator (*i*Bu₃Al) is added directly to the reactor followed by addition of supported catalyst. Alternatively, metal complex and activator are added to support concurrently (example

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2). A third permutation can be seen in comparative example 7 in which activator and support are combined first, followed by addition of organometallic complex. As such, all aspects of the present claims are taught adequately in the prior art.

5. Claims 6, 7, and 12-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicants have submitted a declaration under 37 C.F.R. 1.131 showing prior invention. Accordingly, the pre-grant publication, U.S. 2003/0004052, no longer applies as a reference under 35 U.S.C. 102(a). Accordingly, the two rejections based on this reference, set forth in the previous office action, have been withdrawn.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).



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April 7, 2005